

Institute of Normal and Pathological Physiology, Slovak Academy of Sciences
Collegium Internationale Activitatis Nervosae Superioris (C.I.A.N.S.)
Slovak Society for Higher Brain Functions SkMA
Czech Society for Psychosomatic Integrations CMA JEP

In cooperation with

Slovak Physiological Society SkMA
Slovak Neuropsychiatric Society SkMA
NCO ENWHP and NO club Bratislava, Slovakia

INTERNATIONAL C.I.A.N.S. CONFERENCE 2012

Wednesday, October 10th, 2012

14.00 Conference opening

14,20 – 15,45 **SOCIAL, EMOTIONAL AND COGNITIVE REPRESENTATIONS OF
AUTISM: INTERDISCIPLINARY PERSPECTIVE**

Chairpersons: S.Masarakí, D. Ostatníková

14,20 – 14,50 ***Invited Lecture: The role of testosterone and its metabolites in autism
etiology***

D.Ostatníková, S.Lakatošová, J.Durdiaková, E.Schmidtová, A.Hlavatá,
A.Kubranská, P.Celec, (Slovakia)

14,50 – 15,00 ***Oxytocin role in autism***

S.Lakatošová, J.Bakoš, A.Kubranská, J.Durdiaková, D.Ostatníková, (Slovakia)

15,00 – 15,10 ***The effects of probiotic administration on gastrointestinal functions in
children with autism***

K.Babinská, L.Slobodníková, D.Jánošíková, S.Lakatošová, J.Bakoš, D.Ostatníková
(Slovakia)

15,10 – 15,20 ***Coenzyme Q10 stimulates brain function in children with autism***

A.Gvozdjaková, J.Kucharská, K.Babinská, S.Lakatošová, D.Nakládal, A.Koplíková,
D.Ostatníková (Slovakia)

15,20 – 15,30 ***Redox status and potential protective effect of methylcobalamin in
autism***

A.Čorejová, D.Rauová, S.Lakatošová, D.Ostatníková, J.Kyselovič (Slovakia)

15,30 – 15,45 Autism - Discussion

15,45 – 16,00 Coffee break

16,00 – 18,00 NEUROPSYCHOLOGY

Chairman: F. Colombo, A. Damborská

16,00 – 16,30 ***Physiological correlates of non-verbal IQ in intellectually gifted girls***
J. Durdiaková, A.Kubranská, D.Ostatníková, P.Celec (Slovakia)

16,30 – 17,00 ***Verbal-manual dual tasks interference in two neurodevelopmental disorders***
K.Jariabková (Slovakia)

17,00 – 17,30 ***Promoting positive psychological functioning: comparison among three group trainings***
F.Colombo, A.Crocetti, S.Masarakí (Italy)

17,30 – 18,00 ***Memory mechanisms and emotional events***
B.Cimrová, F.Jagla, I.Riečanský (Slovakia)

18,00 Dinner

20,00 Meeting of the C.I.A.N.S. Executive Committee members

Thursday, October 11th, 2012

09,30 – 12,00 EXPERIMENTAL PSYCHOPHYSIOLOGY

Chairman: F. Jagla, M.Slavutskaya

09,30 – 10,00 ***EEG investigation of attention and decision making cognitive functions by “double step” experimental scheme***
M. Slavutskaya, V.Moiseeva, V.V.Shulgovskiy (Russia)

10,00 – 10,30 ***Saccade Ip at the presentation of target and distracting stimuli to the dominant and subdominant eye***
V.Moiseeva, M.Slavutskaya, N.Fonsova, V.V.Shulgovskiy (Russia)

10,30 – 11,00 ***Polyphenols can affect the cardiovascular functions via non vegetative but higher brain regulatory mechanisms also***
F.Jagla, B.Cimrová, O.Pechanova (Slovakia)

11,00 – 11,30 ***The psycho-acoustic transitional (pat) approach can reduce cognitive-emotional distress associated with tinnitus***
G.Finsterle, R.Pignatti, S.Basile (Italy)

11,30 - 12,00 ***Influence of visual input during stance with increased postural threat***
K.Bučková, N.Čapičíková, D.Bzdúšková, F.Hlavačka (Slovakia)

12,00 - 14,00 Lunch

14,00 – 16,00 ELECTROPHYSIOLOGY OF HIGHER BRAIN FUNCTIONS

Chairmen: R. Roman, I.Riečanský

14,00 – 14,30 ***Synchronized activation of frontal and temporal regions during target variant of visual oddball task***

A.Damborská, M.Brázdil, I.Rektor, M.Kukleta (Czech Republic)

14,30 – 15,00 ***Frontal and parietal early pre-movement activation during self-paced hand movement***

M.Kukleta, B.Turak, J.Louvel (Czech Republic, France)

15,00 – 15,30 ***Variability of hippocampal cognitive potential recorded during a simple sensorimotor task (intracerebral study)***

R.Roman, J.Chládek, M.Brázdil, I.Rektor, M.Kukleta (Czech Republic)

15,30 – 16,00 ***Contribution of short-term memory retention to rotation-related ERP negativity***

I.Riečanský, L.Tomova, C.Lamm (Slovakia, Austria)

16,00 – 16,30 Coffee break

16,30 – 18,00 PRESENTATION OF POSTERS

How does wearing high heel shoes influence postural stability

K.Bučková, J.Lobotková, Z.Halická, F.Hlavačka (Slovakia)

Using accelerometers in visual biofeedback for improving human balance control

Z.Halická, J.Lobotková, K.Bučková, D.Bzdúšková, F.Hlavačka (Slovakia)

Postural stabilizing effect of vitamin d in elderly osteopenic and osteoporotic women

J.Lobotková, Z. Halická, K. Bučková, Z. Killinger (Slovakia)

The contribution of wisdom and its components to health and psychological resistance

V.Roháriková, V.Cviková (Slovakia)

Shifts in visual spatial attention affect dichotic listening

M Špajdel, V.Roháriková, S.Budáč, I.Riečanský (Slovakia)

Different NO-dependent activation of NF-κB in the central nervous system.

J. Parohová, S. Vrankova, Z. Matuskova, M. Kovacsova, A. Barta, O. Pechanova (Slovakia)

Age-dependent changes of nitric oxide generation in experimental metabolic syndrome

Z. Matuskova, S. Vrankova, J. Parohova, M. Kovacsova, A. Barta, O. Pechanova (Slovakia)

Cerebellar nuclear factor kappaB, nitric oxide and behavioural activity: differences in hypertensive and obese rats

A.Barta, S.Vranková, J.Parohová, M.Kováčsová, Z.Matúšková, K.Bučková, F.Jagla, O.Pecháňová (Slovakia)

18,30 Dinner

Friday, October 12th, 2012

09,00 – 10,20 NEUROSCIENCES - REGULATORY MECHANISMS

Chairpersons: O.Pecháňová, R.Roman

09,00 – 09,30 **Sex differences in delayed effect of crowding stress on open field behaviour of young normotensive rats**

N.Šestáková, P.Bališ, P.Slezák, A.Púzserová, I.Bernátová (Slovakia)

09,30 – 10,00 **Quantitative trait locus (qtl) analysis of the rat hxb/bxh recombinant inbred strains reveals genetic determinants of spatial learning and behavioral flexibility in active place avoidance task**

A.Stuchlik, H.Hatalova, A.N.Grzyb, R.Overall, J.Silhavy, V.Zidek, I.Prokopova, K.Vales, T.Petrasek, M.Pravenec, G.Kempermann (Czech Republic, Germany)

10,00 – 10,20 **Central effects of angiotensin converting enzyme inhibitor, captopril in experimental hypertension**

O.Pecháňová, S.Vranková, L.Paulis, F.Jagla (Slovakia)

10,20 End of the Conference

10,25 – 10,40 Coffee break

LIFESTYLE AND RISK FACTORS IN DISEASES OF CIVILIZATION

10,40 Symposium opening

10,45 – 12,20 INTRODUCTORY WORKSHOP: RISK FACTORS

10,45 – 11,05 **Introductory Lecture: Lifestyle and health: risk factors**

F.Jagla, O.Pecháňová (Slovakia)

11,05 – 11,35 **Invited Lecture: Functional foods; focus on bioactive tripeptides and berries**

H.Vapaatalo, A.Siltari, A.Kivimäki, P.Ehlers, A.Turpeinen, R.Korpela (Finland)

11,35 – 12,05 **Invited Lecture: Probiotics in health and disease**

R.Korpela (Finland)

12,05 – 12,20 **Changed food administration and phase delay shifts of light results in disturbance of circadian rhythms in cardiovascular system**

L.Molčan, A.Veselá, M.Zeman (Slovakia)

12,20 – 13,30 Lunch

14,00 – 18,00 Social programme

20,00 Get together party

Saturday, October 13th, 2012

09,00 – 11,00 ISCHEMIA AS CARDIOVASCULAR RISK FACTOR

09,00 – 09,30 ***Invited Lecture: Influence of cardiovascular risk factors on cardiac adaptation to ischemic stress***
P.Ferdinady (Hungary)

09,30 – 10,00 ***Invited Lecture: Hypertension and dyslipidemia alter cardiac response to ischemia via suppression of innate cardioprotection***
T.Ravingerová, S.Čarnická, V.Ledvényiová, M.Nemčeková, A.Adameová, M.Ferko, M.Barteková, A.Lazou, F.Kolář (Slovakia, Greece, Czech Republic)

10,00 – 10,30 ***Invited Lecture: Cardiac ischemic tolerance in rats adapted to chronic continuous normobaric hypoxia***
F.Kolář (Czech Republic)

10,30 – 10,45 ***Involvement of membrane fluidity in regulation of systems embedded in cardiac sarcolemma and mitochondria in ischemia, diabetes and hypertension***
A.Ziegelhöffer, I.Waczulíková, M.Ferko, J.Mujkošová, O.Uličná, O.Vančová, M.Muráriková, M.Jašová, I.Kancírová, T.Ravingerová (Slovakia)

10,45 - 11,00 ***Mitochondria from diabetic rat hearts are actively involved in increased tolerance of the myocardium to ischemia/reperfusion injury***
M.Ferko, M.Muráriková, M.Barteková, V.Ledvényiová, I.Waczulíková, I. Kancírová, M.Jašová, T.Ravingerová, A.Ziegelhöffer (Slovakia)

11,00 – 11,15 Coffee break

11,15 – 12,45 NITRIC OXIDE AND CARDIOVASCULAR RISK FACTORS

11,15 – 11,45 ***Invited Lecture: The role of L-arginine: NO system in acute ischemic stroke.***
V.Jakovljevič (Serbia)

11,45 – 12,15 ***Invited Lecture: The role of gasotransmitters in the effects of homocysteine-related compounds in isolated rat heart***
D.Djurič (Serbia)

12,15 – 12,30 ***Experimental models of metabolic syndrome: focused on NO and ROS balance.***
S.Vrankova, J.Parohova, A.Barta, M.Kovacsova, Z. Matuskova, I. Dovinova, Z.Dobesova, J.Zicha, J. Kunes, O. Pecháňová (Slovakia, Czech Republic)

12,30 -12,45 ***Beneficial effects of wy14643 in ischemia-reperfusion injury in isolated rat heart: involvement of ROS.***
S. Čarnická, M. Nemčeková, M. Ferko (Slovakia)

13,00 – 14,00 Lunch

14,00 – 16,00 PHYSIOLOGICAL AND CLINICAL ASPECTS

14,00 - 14,30 ***Invited Lecture: Irregular light-dark cycles and light contamination as risk factors of civilization diseases***

M.Zeman, L.Molčan, A.Veselá, M.Okuliarová, I.Herichová, P.Hanuliak, J.Hraška (Slovakia)

14,30 – 15,00 ***Invited Lecture: Local renin-angiotensin system in adipose tissue - searching for physiological significance***

S.Zórad, L.Gajdosechova, K.Krskova (Slovakia)

15,00 – 15,30 ***Invited Lecture: Key advances in antihypertensive treatment***

L.Paulis (Slovakia)

15,30 – 15,45 ***Angiotensin converting enzyme inhibitors: Drug design effects in the spontaneous hypertension***

O.Pechánová, S.Vranková, L.Paulis (Slovakia)

15,45 – 16,00 ***Cardiac Arrest and Cardiopulmonary Resuscitation: New Perspectives of Nitric Oxide Donors***

P.Kružliak, O.Pechánová (Slovakia)

16,00 – 16,15 ***Ambivalent effects of curcumin: Model of extrahepatal biliary atresia as an example***

A.Barta, P.Janega, P.Babál, E.Murár, O.Pechánová (Slovakia)

16,15 – 16,40 Coffee break

16,40 – 18,00 PRESENTATION OF POSTERS

Obesity and aging are associated with alterations in plasma oxytocin levels and oxytocinase activity

L. Gajdošechová, A.B. Segarra, K. Kršková, R. Olszanecki, S. Zorad (Slovakia)

Effect of high fat diet-induced obesity on the expression of renin-angiotensin system components in rat adipose tissue

K. Kršková, Š. Zorád (Slovakia)

Alibernet red wine extract increases nitric oxide and superoxid dismutase activities in spontaneously hypertensive rats: Potential mechanisms behind

M. Kovacsova, A. Kondrashov, S. Vrankova, I. Dovinova, R. Sevcik, J. Parohova, A. Barta, O. Pechanova (Slovakia, Czaech Republic)

Influence of maturation and gender on response to ischemic preconditioning in the rat heart: Distinct role of pi3k/akt pathway

V. Ledvényiová, D. Pancza, J. Matejčíková, I. Bernátová, T. Ravingerová (Slovakia)

Effect of molsidomine and sildenafil on ischemic tolerance in chronically hypoxic rat hearts

P. Mandíková, A. Chytilová, P. Míčová, K. Kožichová, L. Dabrowská, I. Mikšík, F. Kolář, J. Neckář (Czech Republic)

Influence of aging and high-fat diet on myocardial ischemic tolerance in mice with amp-activated protein kinase α 2-subunit deficiency

K. Slamova, P. Janovska, F. Papousek, J. Kopecky, F. Kolar (Czech Republic)

Development of biochemical parameters pattern in core and penumbra during the infarct evolution after transient mcao in rat

P.Bonová, V.Danielisová, M.Nemethová, J.Burda, M.Gottlieb (Slovakia)

Possible therapeutic approach to the treatment of traumatic spinal cord injury.

Š.Gedrová, M.Dubravčík, M.Karasová, J.Gálik (Slovakia)

Cyclic gmp in diaphragm after the c2-c3 hemisection and after the phrenic nerve injury

Ľ.Hricová, A.Kisucká, A.Kucharíková, A.Schreiberová, Z.Oroszová, Š.Gedrová, N.Lukáčová (Slovakia)

Immunohistochemical and behavioral study in rats after spinal cord injury and baclofen treatment

A.Kucharíková, Ľ.Hricová, A.Kisucká, A.Schreiberová, N.Lukáčová (Slovakia)

The expression of angiotensin ii receptors in the spinal ganglia after chronic constrictive nerve injury

Z.Oroszová, Ľ.Hricová, N.Lukáčová, J.Pavel (Slovakia)

18,20 Closing remarks

19,00 Social Dinner

Sunday, October 14th, 2012

9,00 – 11,00 SYMPOSIA WORKSHOPS

09,00 – 09,30 ***EU and DG SANCO: ENWHP and PHWork project***

09,30 – 10,00 ***COST BM1005: Gasotransmitters***

10,00 – 10,30 ***CE SAS NOREG***

10,30 – 11,00 ***APVV projects***

11,00 Departure